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“Pushing a Big Rock Up a Steep Hill”: Acquisition Lessons Learned From DoD Applications Storefront

Acquisition Research: Creating Synergy for Informed Change

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Report Documentation Page

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Agenda

- Introduction
- Problems with the Defense Acquisition System
  - The Current Process
  - Industry Approach
- Overview of Recommended Solution
- Ozone Widget Framework
- Widgets in Action
- DOD Storefront and PEO C4I Marketplace Overview
- Widget Governance Process
- Conclusion

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Introduction

- Industry has already fine-tuned its use of widgets and mobile applications
  - Rapidly evolving software development paradigm
  - A driving force in delivery of web-based dynamic content
- Using standard acquisition processes in DOD, by the time new solutions are deployed to the warfighter, the technology is obsolete
- Several programs within the DOD have started similar initiatives that hold the promise of reducing the “heavy lifting” required as part of the current acquisition process

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What is a Widget?

- Lightweight
- Single-purpose
- User configured
- Web-enabled application
- Provides summary information or a limited view into a larger application
- Also used alongside related widgets to provide an integrated view

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Defense Acquisition System Challenges

- Defense Acquisition System was designed to purchase “big ticket” items like aircraft carriers and fighter planes
- Excessive development and update cycles
  - Private sector cycles are 12 -18 months
  - Defense IT systems routinely require 48 - 60 months

Average Build Time: 7+ years

Average Build Time: 18 mos.

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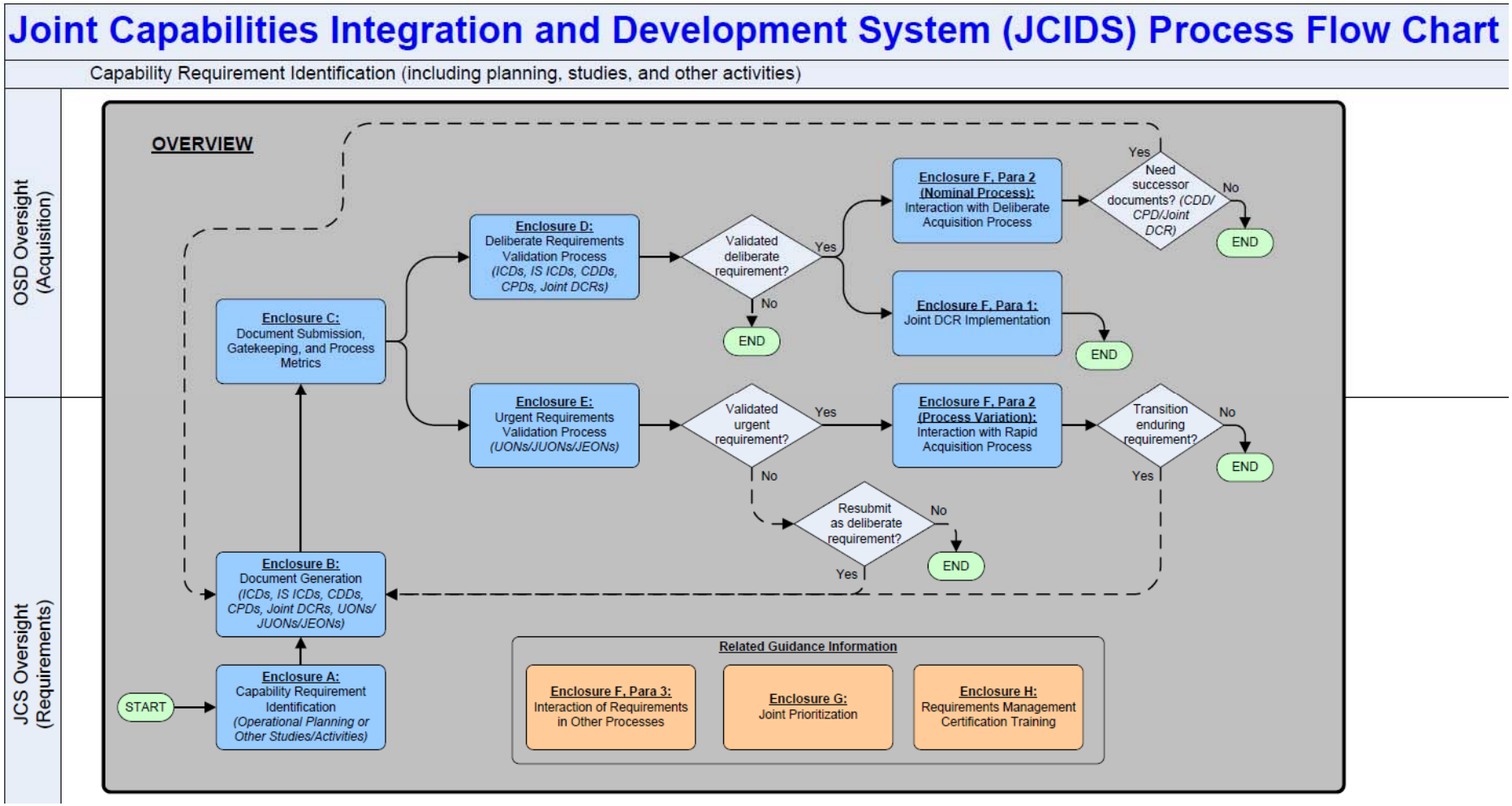
The Current Process



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Industry Approach

- Current acquisition rules required for POR systems have caused a major gap between the technology available to the warfighter and that which is available commercially
  - Exacerbated by capabilities of smartphones and tablet computers
  - Greater gap for younger service members raised on commercial technologies and then forced to use outdated systems
- Apple and Google are both known for their mobile operating systems and the applications (or “apps”) that run on them
  - Both companies have “app” stores that allow developers to rapidly deploy applications, but they do so in very different ways

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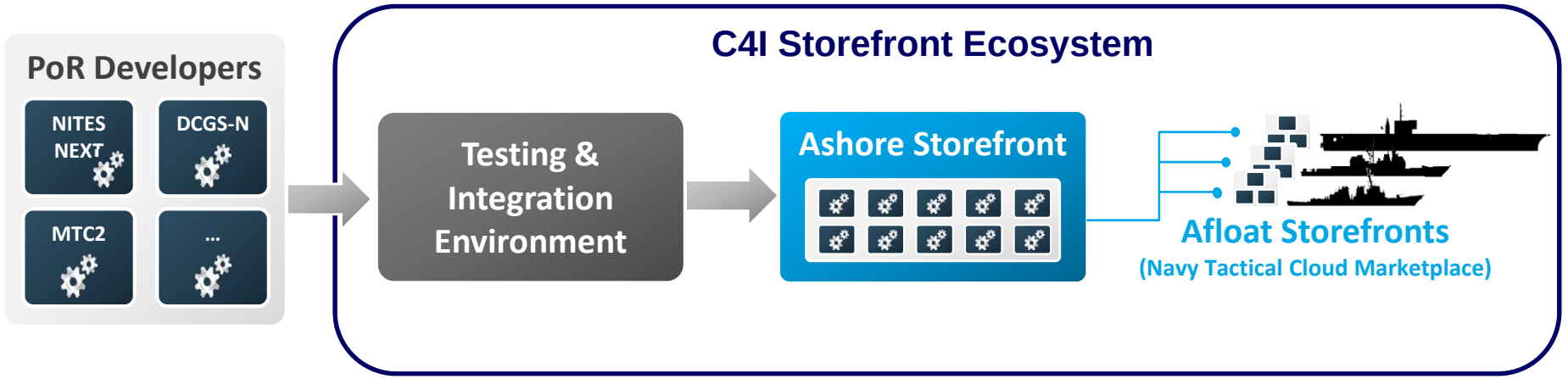
Overview of Recommended Solution

- A lightweight web application test and integration (T&I) environment
  - Needed to model, test, exercise, and perform certification and accreditation of widget capabilities
- A Widget T&I environment is required for widget technology development throughout the DOD
- A widget T&I environment is needed that incorporates the unique and common aspects of Navy widget environments

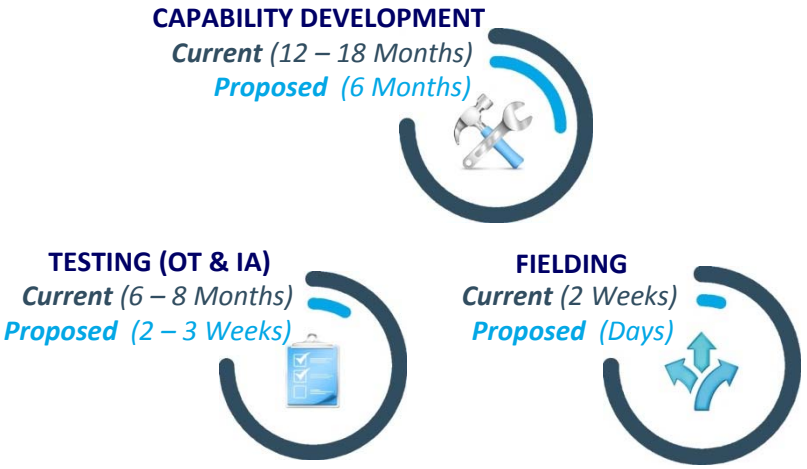
PEO C4I Storefront
Vision

- Warfighters access *all* C4I capabilities via a *single*, browser-based C4I Storefront
  - Widgets
  - Applications
  - Updates / Patches
- Common PoR processes and a standard mechanism for deployment
- Positive control and visibility into the C4I systems and version available on the network

PEO C4I Storefront
Overview and Benefits



Increased Speed to Capability

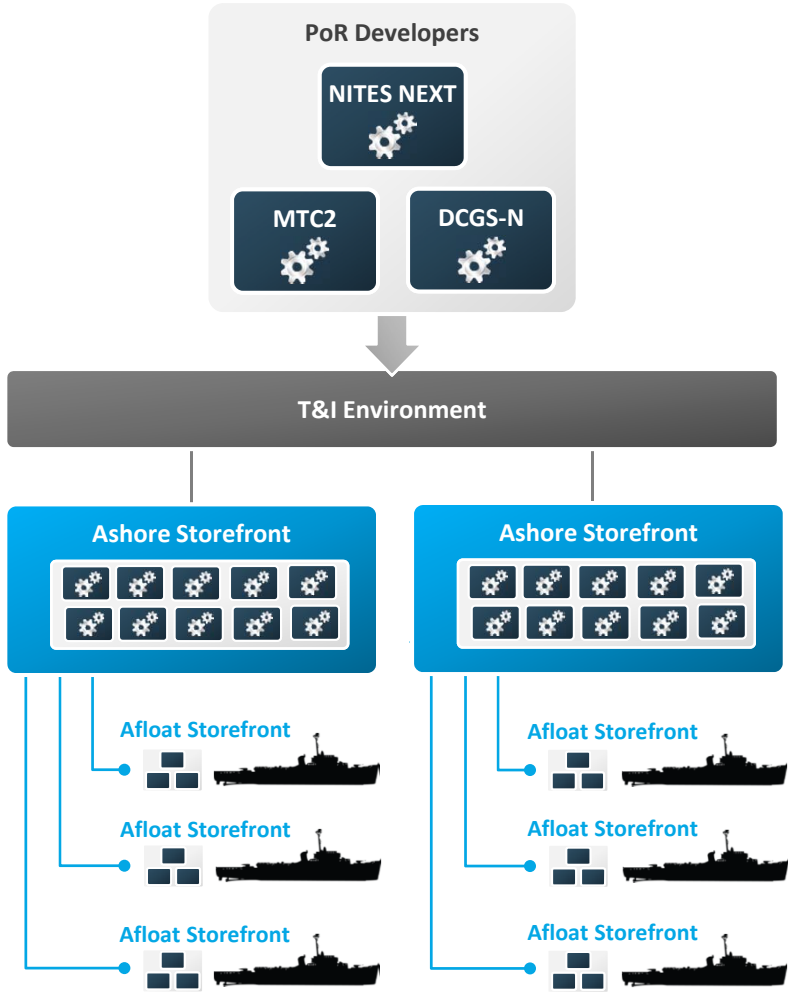


Reduced Total Ownership Costs

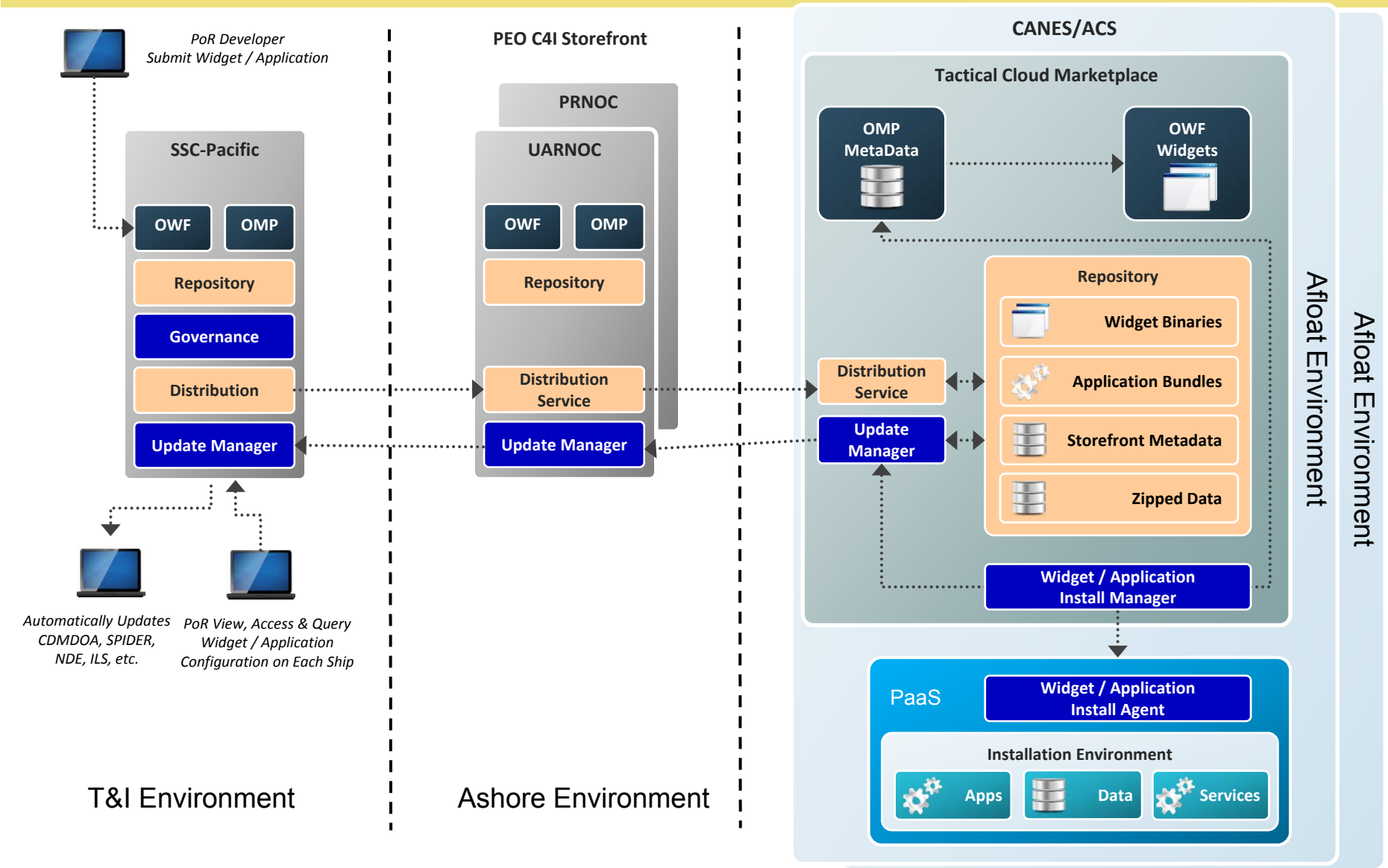
- Cost per app rather than per platform
- Fielding cost down
  - ➢ Upload once; available for all approved platforms
  - ➢ Automate delivery of widgets, applications, and services
  - ➢ No tech visit necessary for installation
- Sustainment cost down
  - ➢ Automate distribution of updates / patches

New OV-1

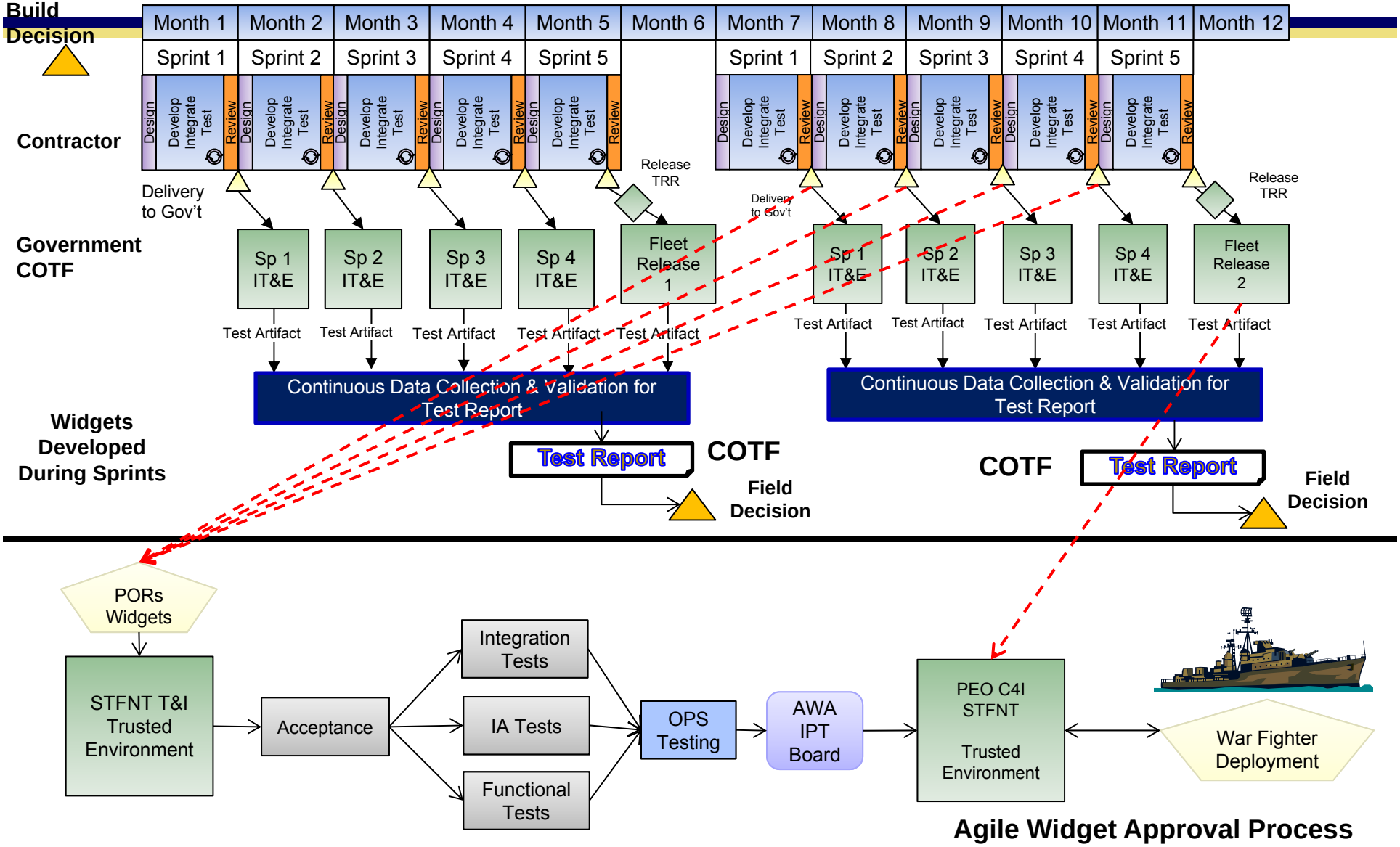
- The Storefront T&I environment provides:
  - Automated submission of new warfighter capabilities
  - Manual and automated integration, functional, and IA testing of widgets and applications
  - Rapid approval process to push new warfighter capabilities to the operational environment
- The PEO C4I Storefront provides:
  - PEO C4I capabilities to ashore users
  - Distribution of PEO C4I capabilities from ashore to the tactical environment
- The Navy Tactical Cloud Marketplace provides:
  - Afloat users the ability to discover, access, and use PEO C4I capabilities
  - Provides feedback on capabilities received, updated, and installed back to the PEO



Navy App Store Enterprise



Rapid IT Process & Agile Widget Process



Agile Widget Approval Process

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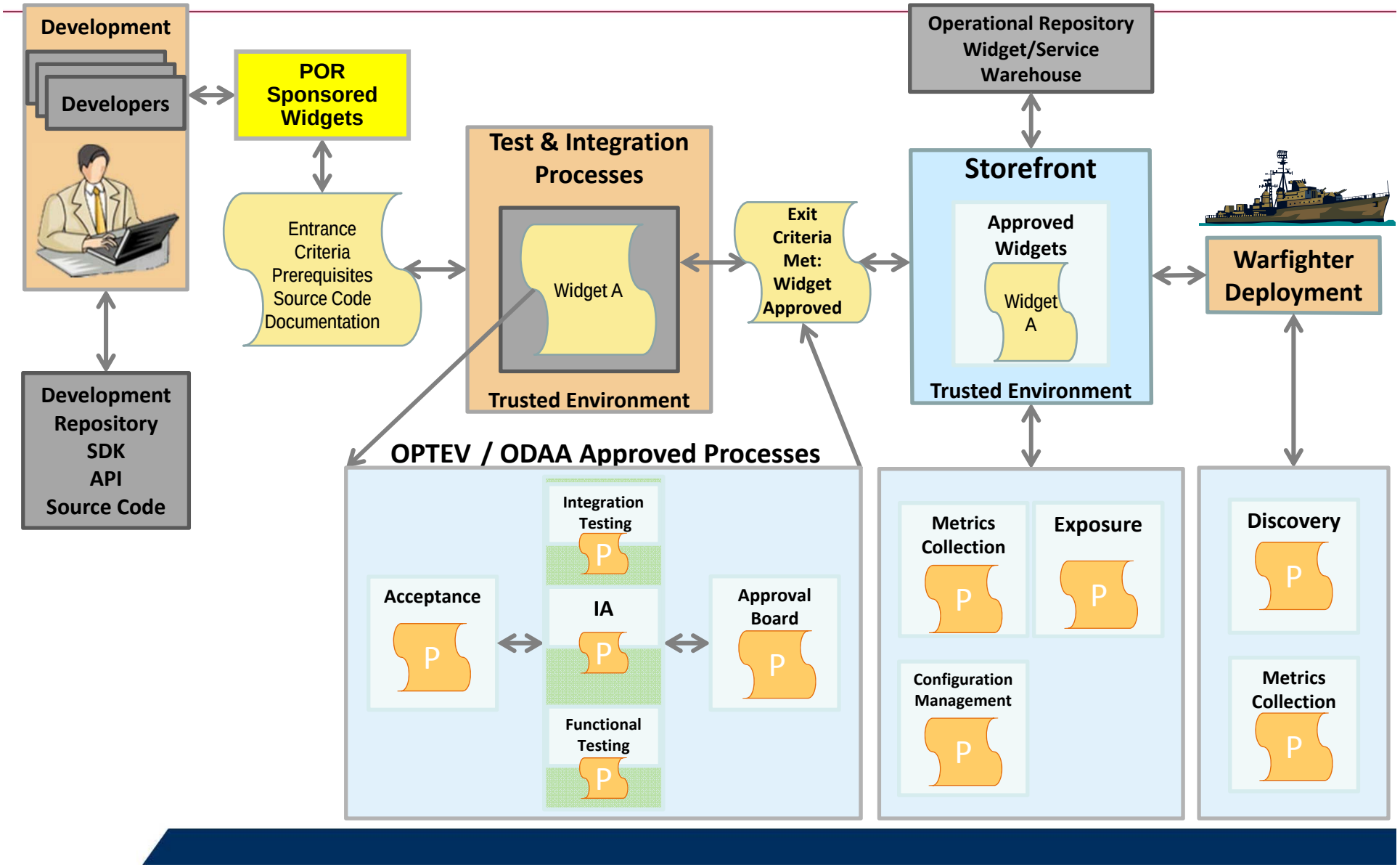
Proposed Widget Governance Process



Better Buying Power and Culture Change

Better Buying Power 2.0

- Control Costs Throughout the Product Lifecycle
  - Supports the rapid IT widget governance process
- Eliminate Unproductive Processes and Bureaucracy
  - Supports the widget governance process with increased user input
- Promote Effective Competition
  - Encourages the creation of more widgets

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Conclusion

- DOD must modify its acquisition philosophy to get new capabilities in the hands of the warfighter
  - Light weight mobile applications
  - Access to services and data sources
  - Streamlined processes for accredited PORs
    - Allows rapid fielding of associated Widgets
  - PEO C4I Marketplace and accompanying Widget Governance Process
    - Cost effective and expedient
    - Provides trusted and secure capabilities
- The future of warfare is information dominance and speed to capability can provide the tactical or strategic advantage our warfighters need

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BACKUPS

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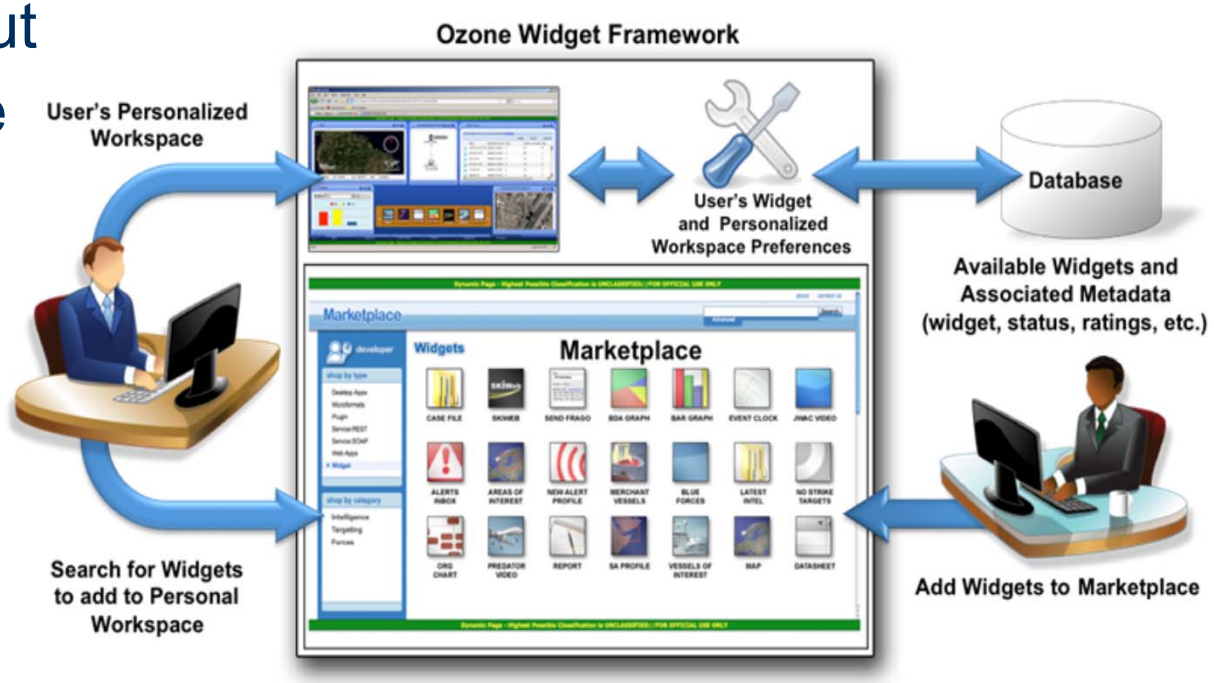
Ozone Widget Framework

- A platform that offers infrastructure services to simplify the development of workflows and presentation-tier application integration

- It is also a layout manager for the operation of widgets on a single web page



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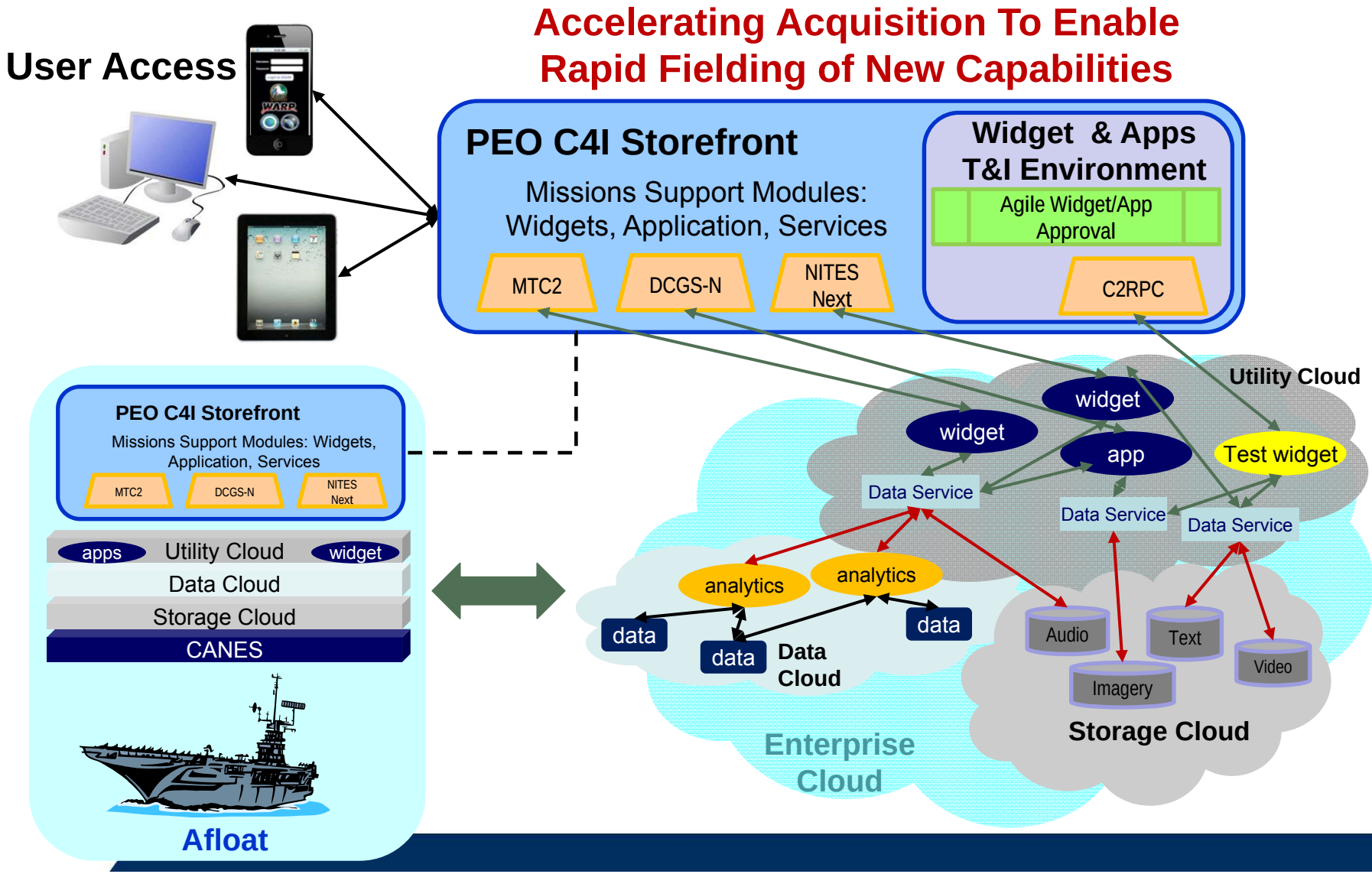
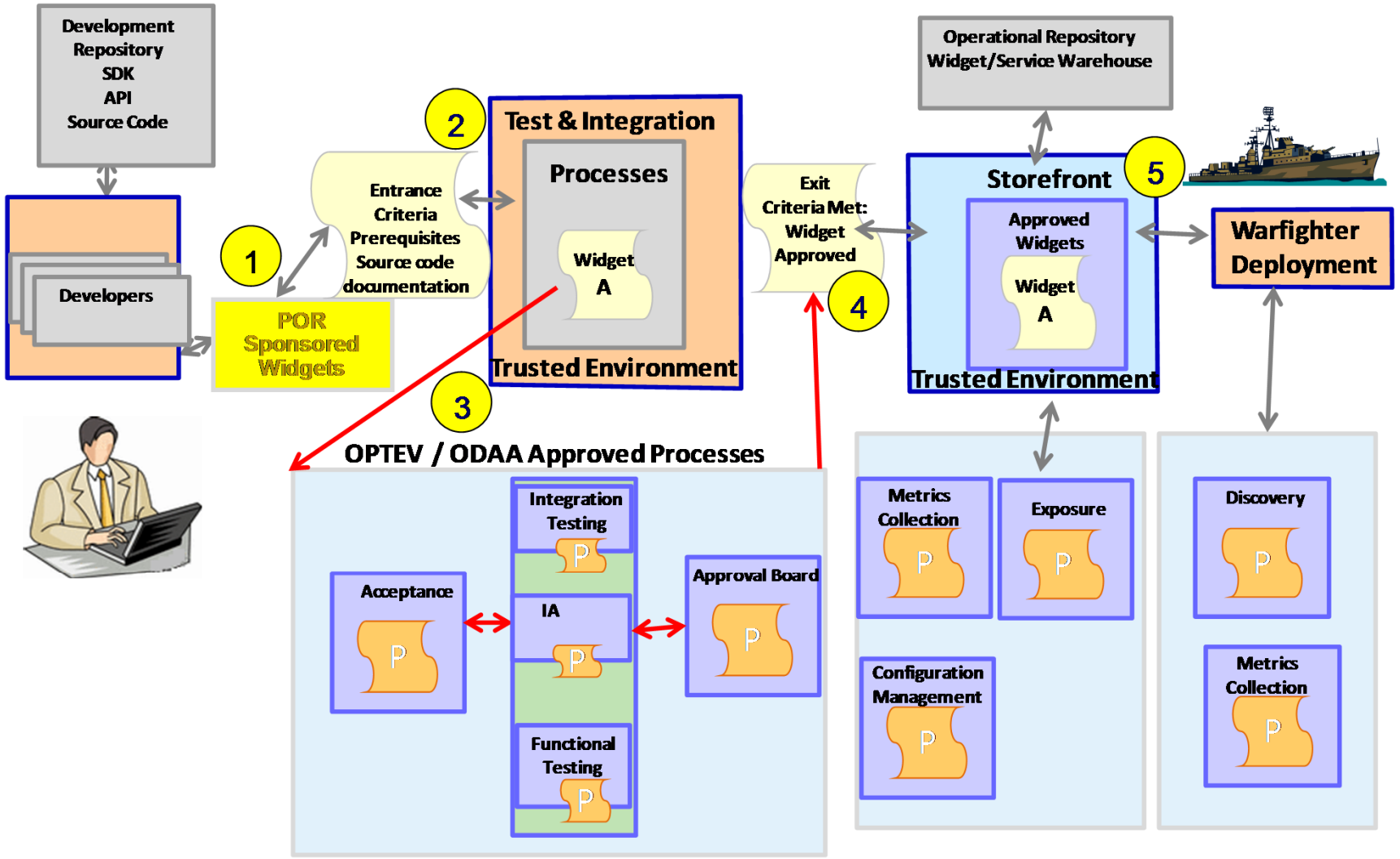
PEO C4I Storefront & Navy Cloud



Widget Governance Process Overview



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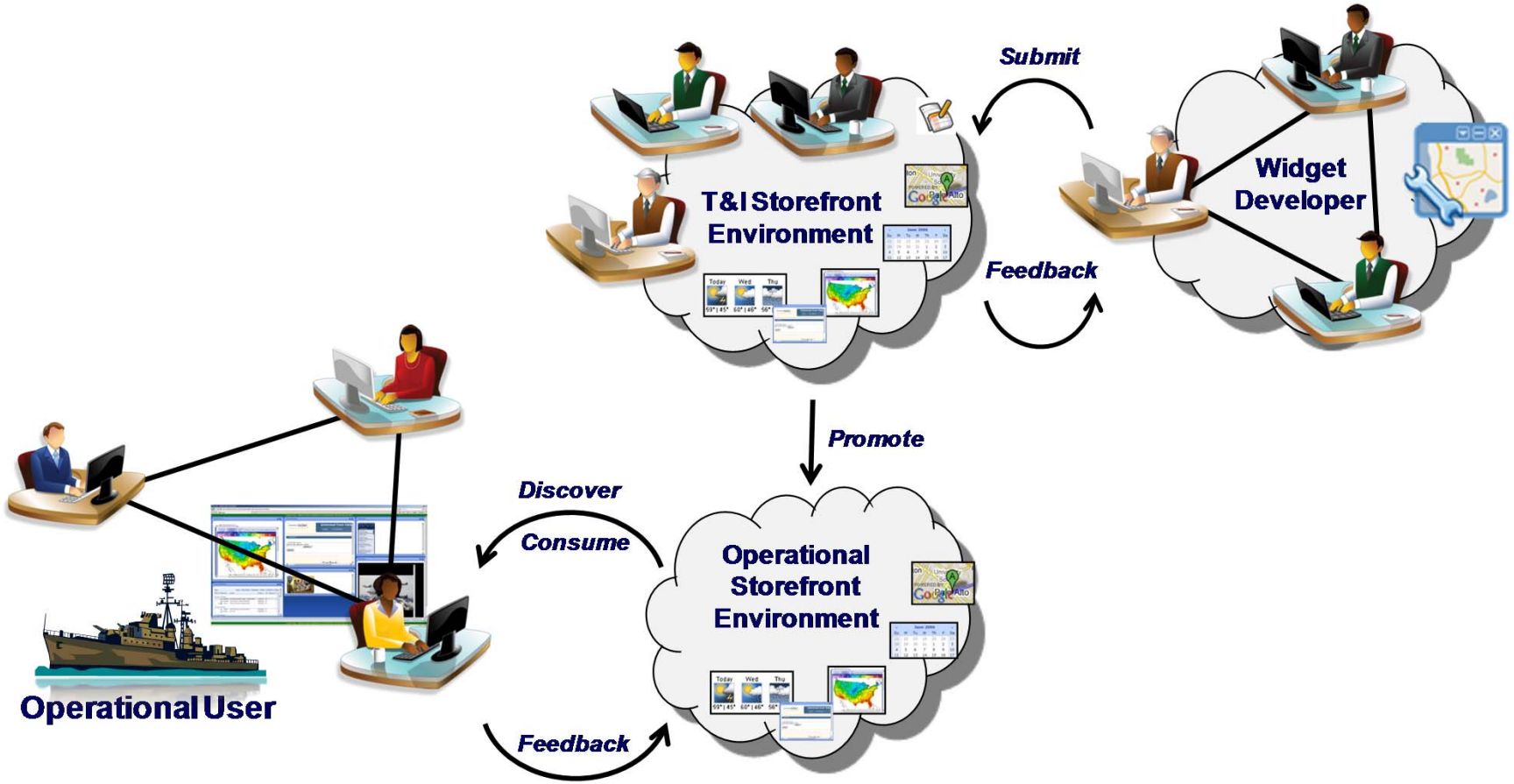
Storefront Operational Concept